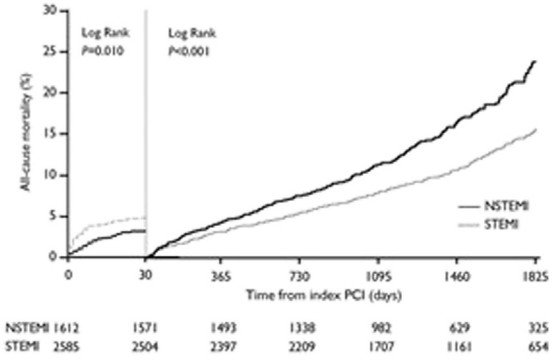
(NSTEMI) have been demonstrated in a few studies. It remains unclear in the drug-eluting stent (DES) era.
Methods: We consecutively enrolled acute myocardial infarction (AMI) patients who underwent percutaneous coronary intervention (PCI) in the COREA-AMI (COnvergent REgistry of cAtholic and chonnAm university for AMI) from January 2004 to December 2009. Of 4,748 AMI patients, 2,607 and 1,617 patients who treated with only DES were diagnosed with STEMI and NSTEMI, respectively. The primary endpoint is 30-day all-cause mortality and mortality from 31 days to 5 years. We performed landmark analysis at 30 days.
Results: Median follow up duration was 43.3 months (interquartile range 29.4 to 59.7 months). All-cause mortality rate at 30 days was higher in STEMI (3.6%; 94 patients) than NSTEMI (2.4%; 39 deaths; P=0.031). On the other hand, mortality from 31 days to 5 years was higher in NSTEMI (17.4% vs. 13.7%; 273 deaths vs. 343 deaths; P=0.001). After adjustment with clinical and angiographic characteristics, STEMI is associated with 30-day mortality (hazard ratio (HR) 1.54, 95% confidence interval (CI) 1.06-2.25, P=0.025) and NSTEMI is independent predictor for mortality from 31 days to 5 years (HR 1.26, 95% CI 1.07-1.48, P=0.006).



Conclusions: STEMI was associated with a higher risk of short-term mortality, but NSTEMI was associated with a higher risk of long-term mortality in the DES era.

TCT-35

The Length of Stay in Hospital after Primary Percutaneous Coronary Intervention for ST-elevation Myocardial Infarction: a data from KAMIR registry

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Background: While clinical outcomes undoubtedly favor primary percutaneous coronary intervention (PPCI) over thrombolysis for ST-elevation Myocardial Infarction (STEMI), there is paucity of data on the optimal length of hospital stay.
Methods: Between Jan. 2008 and Sep. 2009, a total of 4,549 STEMI patients enrolled in the Korea Acute Myocardial Infarction Registry(KAMIR) who underwent PPCI and survived to hospital discharge, were grouped according to the length of stay in hospital: Group I (short stay, ≤3 day, n=809); Group II (medium stay, 4-6 days, n=2,263); Group III (long stay, ≥7 days, n=1,477). We investigated major adverse cardiac events (MACEs) at 1, 6, and 12 months and independent predictors of long stay in hospital.
Results: Group III were significant older age (62.8 vs. 63.3 vs. 66.9 years, p< 0.001), more female (18.3, 22.3, 30.2%, p< 0.001), lower body mass index (BMI) (24.8, 24.2, 23.7, p=0.001), higher Killip class≥II (19.9, 26.1, 41.3%, p< 0.001), higher three vessel disease (14.4, 16.8, 19.6%, p=0.005), higher prevalence of complication during PPCI (4.1, 7.7, 18.5%, p< 0.001); higher level of NT-proBNP, lower LV ejection fraction(EF) (p< 0.001). There were no significant difference of MACE at 1, 12 months between Group I, II and III (1 month MACE: 2.4 vs. 1.7 vs. 2.3%, p=0.475; 12 months: 3.4, 5.6, 3.9%, p=0.262). In multivariate analysis, independent predictors of long stay (≥7 days) in hospital were advanced Killip class≥ II (odds ratio [OR] 1.752; 95% CI, 1.361-2.255, p< 0.001), higher complication rates during PPCI (OR 2.479; 95% CI, 1.737-3.537, p< 0.001), EF < 35% (OR 1.853; 95% CI, 1.142-3.007, p=0.013), creatinine > 2.5 mg/dL (OR 3.900; 95% CI, 1.053-14.441, p=0.042), higher troponin I (OR 1.698; 95% CI, 1.353-2.132, p< 0.001) and NT-pro BNP levels(OR 1.946; 95% CI, 1.468-2.580, p< 0.001).
Conclusions: Short length of stay in hospital for low-risk and uncomplicated patients was similar clinical outcomes and prognosis compared with medium, long stay after PPCI for STEMI during a 12-month clinical follow-up.

TCT-36

Prognostic Difference of Normal Versus High Presenting Blood Pressure in Patients With Acute ST-Elevation Myocardial Infarction Undergoing Primary Percutaneous Coronary Intervention

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Background: We evaluated the impact of normal versus high presenting BP on clinical outcomes and cardiac function in patients with acute ST-elevation myocardial infarction (STEMI) treated with primary percutaneous coronary intervention (PPCI).
Methods: A total of 12,234 STEMI patients treated with primary percutaneous coronary intervention (PPCI) were compared according to normal (systolic BP >90 mmHg and ≤139 mmHg) versus high (systolic BP ≥140 mmHg) presenting BP.
Results: Patients with normal presenting BP (n = 7,647, 62.5%) were associated with significantly higher in-hospital mortality (4.3 vs. 1.8%, p < 0.001), particularly in patients with prior hypertension, when compared to patients with high presenting BP (n = 4,587, 37.5%). Patients with normal presenting BP showed higher incidence of cardiac death (5 vs. 2.6%, p < 0.001) and the composite of major adverse cardiac events (MACE, defined as all-cause death, myocardial infarction, or re-vascularizations; 12.2 vs. 10.1%, p < 0.001) at one-year when compared to patients with high presenting BP. Left ventricular ejection fraction was significantly lower in patients with normal presenting BP at baseline and follow-up (50.7 vs. 51.9%, p < 0.001; 53.6 vs. 54.7%, p = 0.011, respectively). Normal presenting BP was associated with increased risk of in-hospital mortality (adjusted OR 2.472, CI 1.681-3.635, p < 0.001) in logistic regression analysis. However, it was not associated with cardiac death (adjusted HR 1.02, CI 0.671-1.55, p=0.927) and the composite of MACE (adjusted HR 0.887, CI 0.693-1.135, p = 0.34) at one-year in Cox proportional hazard regression analysis.
Conclusions: Normal presenting BP, particularly in patients with prior hypertension, was associated with increased in-hospital mortality and lower cardiac function in STEMI patients treated with PPCI when compared to high presenting BP. However, outcomes were not different in both groups of patients at one-year although cardiac function was persistently lower in patients with normal presenting BP.

TCT-37

Comparison of Sirolimus-eluting, Everolimus-eluting, Biodegradable Polymer stent, and Endothelial Progenitor Cell Capture stent in Patients with ST-elevation Myocardial Infarction

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Background: We compared the efficacy and safety of sirolimus-eluting stents (SESs), everolimus-eluting stents (EESs), biodegradable polymer stent (BP-DESs), and endothelial progenitor cell capture stents (EPCCSs).
Methods: From the IRIS-DES registry, we identified 1517 patients treated using PCI with SESs (N = 372), EESs (N = 405), BP-DESs (N = 300), and EPCCSs (N=440) in ST-elevation myocardial infarction (STEMI). Major adverse cardiac events (MACE) were defined using composite of death, myocardial infarction, and target vessel revasularization at 24 months.
Results: At 2 years, there was no difference in the incidence of MACE (8.5% in SESs, 9.9% in EES, 10.2% in BP-DES, and 12.8% in EPCCS, P = 0.281), death (5.0% in SESs, 4.3% in EES, 4.4% in BP-DES, and 6.2% in EPCCS, P = 0.718), MI (0.6% in SESs, 1.6% in EES, 1.5% in BP-DES, and 1.5% in EPCCS, P = 0.572), and TVR (3.8% in SESs, 5.9% in EES, 4.8% in BP-DES, and 6.5% in EPCCS, P = 0.313). The EPCCSs group showed trend of higher rate in any revascularization, but no significantly statistical difference (6.6% in SESs, 9.1% in EES, 7.2% in BP-DES, and 11.6% in EPCCS, P = 0.313). The cumulative rates of definite stent thrombosis were 0.3% in SESs, 1.2% in EESs, 0.7% in BP-DESs, and 1.6% in EPCCSs (P = 0.239).
Conclusions: The 4 different DESs showed no significant difference in clinical outcome at 2-year follow-up in patients with STEMI.